IN THE SPECIFICATION:

Please amend the following paragraphs as indicated.

Do not enter SPEC (07/01/2004). The paragraphs in this amendment do not correspond to the paragraphs in SPEC (08/24/2001). ADD 3/31/05

[0079] In another embodiment, the leads can be comprised of an electrically conductive fluid. Depending upon the application, such a fluid can be electrically conductive, thermally conductive or both thermally and electrically conductive. With reference to FIGS. 4A and 4B, electrical connection to the functional component can be accomplished through the use of microchannel networks 204 filled with the conductive fluid ~~204~~ and in fluid connection with the component 206. The dimensions of the microchannels are in accordance with the required design parameters of the leads. One variation on this approach would be that in which the electrically conductive fluid comprises the functional component itself, for instance, a serpentine channel that is filled with an electrically conductive fluid is an example of a working design for a heater element. Another variation would be to introduce a conductive fluid into the microchannels which will subsequently cure into a solid form that is stable and integral to the device. In the alternative, localized regions of the fluid can be selectively cured, i.e., photocurable fluids selectively exposed to UV light. Such designs may be particularly useful for the manufacturing of the provided devices, especially those that may be multidimensional or multi level. Curable conductive fluids would include epoxy resins and inks comprising an electrically conductive portion, usually metal or graphite. Other examples of electrically conductive fluids include uncured inks and ionic or electronic liquid conductors. For example, aqueous salt solutions and liquid metals are useful in the invention. Conveniently, liquid metals such as mercury can be used in order to avoid hydrolysis and the generation of gases from reduction and oxidation processes present at electrodes where ionic solutions are utilized. Such reactions can also be minimized through the use of ionic entities in nonaqueous solvent such as methanol and the like.

[0096] FIG. 5 shows one design for an electrochemical detector that demonstrates such a configuration. The detector is comprised of interdigitated detection elements 501, leads 507 and contacts 513. The detection elements 501 are located near the end of the capillary channel 503 for purposes of optimizing detection signals. For a general description of electrochemical detectors and their placement relative to electrophoretic channels, see U.S. Patent No. 5,906,723 which is incorporated herein by reference. If the component is to serve as a driving electrode for